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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,256	03/23/2004	Kazuhiro Shimawaki	4468-012B	1914
<div>7590 05/15/2007 LOWE HAUPTMAN GILMAN &amp; BERNER, LLP 1700 Diagonal Road, Suite 300 Alexandria, VA 22314</div>			<div>EXAMINER PERILLA, JASON M</div>	
			<div>ART UNIT 2611</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 05/15/2007</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/806,256

Applicant(s).

SHIMAWAKI, KAZUHIRO

Examiner

Jason M. Perilla

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4, 5, 9, 10, 14, 15, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5, 9, 10, 14, 15, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/712,844.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 4, 5, 9, 10, 14, 15, 19, and 20 are pending in the instant application.

#### ***Response to Amendment/Comment***

2. The indication of allowable subject matter made in the first office action has been withdrawn in view of the newly cited reference Masumoto et al (U.S. Pat. No. 5809094).

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 4, 5, 9, 10, 14, 15, 19, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Masumoto et al (U.S. Pat. No. 5809094; hereafter "Masumoto").

Regarding claim 1, Masumoto discloses a reception data synchronizing apparatus according to figure 1, for a synchronization to be obtained between reception data (input to "DATA BUFFER" 1) having a plurality of synchronism patterns and

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expectation data or "a predetermined offset word" as an expected value of the reception data (col. 4, lines 1-5), comprising: a phase recording means (5, 6) for recording second synchronism pattern detecting timing (6) at which a second of the plurality of the synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing (5), as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data (col. 4, lines 59-65; col. 5, lines 4-11); a timing generating means (8) for generating a timing for decision; and a collation and synchronism decision means (2) for collating the reception data with the expectation data or "predetermined offset word" to decide whether or not the reception data is consistent in phase with the expectation data according to the timing for decision (col. 4, lines 1-5), wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision means collates the reception data with the expectation data (col. 5, lines 4-11), and wherein the timing for decision is a timing obtained by replacing the first synchronism pattern detecting timing with the second synchronism pattern detecting timing recorded in the phase recording means (5, 6), when the collation and synchronism decision means gives a decision for inconsistency in phase (col. 6, line 24 – col. 7, line 50). Masumoto discloses a synchronization apparatus wherein input data is correlated with a known "predetermined offset word" or expected synchronism pattern. Once a first synchronization timing is made according to a match with the "predetermined offset word" by the collation decision means (2), the timing is stored in the "MAIN SYNCRONIZATION DETECTION CIRCUIT" (5) as a first timing of the synchronism timing. Thereafter, when a second

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synchronization timing is determined by the decision means (2), it is stored in the "SUBORDINATE SYNCRONIZATION DETECTION CIRCUIT" (fig. 1, ref. 6; col. 5, lines 4-10) as a second timing of the synchronism timing. Finally, in the case that the first timing is determined to be incorrect, the timing generation means (8) of the apparatus switches from the first "MAIN" timing to the second "SUBORDINATE" timing (col. 6, lines 3-10).

Although Masumoto discloses a phase recording means recording each of the first and second timings, a "phase *difference* recording means" for recording a phase timing difference between the first and second timings is not disclosed. Furthermore, Masumoto discloses switching between the first and second synchronization timings if a finding of phase inconsistency is made rather than shifting the first synchronism timing by the phase difference between the first and second timings. Hence, the difference between the prior art reference Masumoto and the instant application is only that the instant application records a "difference" between two timings while Masumoto records each of the timings individually. Thereafter, when an "inconsistency in phase" is determined (that is, the first timing is found to be incorrect) the prior art reference Masumoto replaces the recorded first timing with the recorded second timing while the instant application discloses shifting the first timing by the difference between the first and second timings.

Furthermore, Hiramatsu discloses an analogous synchronization apparatus wherein a frame timing difference between a transmitter and receiver is determined (col. 3, lines 34-37). The differences between the prior art reference Masumoto and the

instant application being slight, only a small level of skill in the art would be required to modify the prior art reference Masumoto as suggested by Hiramatsu to gather "*phase difference*" information between two timings rather than two the two timings separately. Finally, the specification does not provide any secondary indications of non-obviousness such as (1) the invention's commercial success, (2) long felt but unresolved needs, (3) the failure of others, (4) skepticism by experts, (5) praise by others, (6) teaching away by others, (7) recognition of a problem, or (8) copying of the invention by competitors. Specifically, the specification of the instant application does not disclose that the recording of a "*phase difference*" between two timings rather than the two timings separately provides and particular advantage or solves any particular problem beyond the prior art reference Matsumoto. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to determine a "*phase difference*" between the two timings of Matsumoto as suggested by Hiramatsu to arrive at the claimed invention because, the differences between the prior art reference Matsumoto and the claimed invention being very small, the analogous prior art references (i.e. Hiramatsu) evidencing alternative methods of recording phase timing differences, and the lack of secondary factors of non-obviousness in the instant application, it is within the level of skill of one having ordinary skill in the art to combine the prior art references Matsumoto and Hiramatsu to arrive at the claimed invention.


Regarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Perilla whose telephone number is (571) 272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jason M. Perilla  
May 2, 2007

jmp

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER